

Situating Cooperative R&D Joint Ventures Between the Need to Innovate and Innovation- Related Competition Rules

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Abstract

This article will investigate how the need to encourage innovations has influenced the R&D Joint Ventures European competition application and regulative practice. The investigation of economic background on R&D joint ventures and their possible effects allows them to be situated in a 'grey area' in which it is a difficult task to set the 'right' balance between encouraging R & D Joint Ventures and competition concerns. Innovation-related Block Exemptions are appointed as being the outcome of this difficult task and are critically discussed. This article suggests several ideas for future regulative amendments.

A. Foreword

For the aim of this article, a topic as broad as R&D Joint Ventures is narrowed down in the following ways: The focus lies with R&D Joint Ventures which could be situated somewhere between pure competition and a merger situation. The influence of Merger regulations will be examined. The article will further discuss ancillary restrictions¹ in the field of IPR but without examining at length IPR² regulations against 'free riding'.³ This article also does not focus on 'hardcore cartels',⁴ the definition of markets, the calculation of market shares,⁵ the role or

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¹ Under the form of patent or know how implications. See Van Bael & Bellis, *Competition Law of The European Community* 79-80 (2005). The ECJ defined ancillary restrictions as "any restriction which is directly related and necessary to the implementation of a main operation": Judgment of 18 September 2001, *Case T-112/99, Métropole Télévision – M6 and Others v. Commission*, [2001] ECR II-2459.

² For an analysis of allocations of intellectual property rights, see P. Aghion & J. Tirole, *The Management of Innovation*, 109 *The Quarterly Journal of Economics* 1185 (1994).

³ Sometimes, firms decide not to protect their R&D investments to encourage spillovers to competing firms on which they free-ride in turn: C. Milliou, *Endogenous Protection of R&D Investments*, Working Article 06-63, Departamento de Economica at Universidad Carlos III de Madrid (2006).

⁴ For an overview, see J. Howden-Evans, *Prohibited Agreements*, 26 *Company Secretary's Review* 129 (2002).

⁵ For more information, see P. J. Slot & J. Angus, *An Introduction to Competition Law* (2006); M. Furse, *Competition Law of the EC and UK* (2006); A. Jone & B. Sufrin, *EC Competition Law* (2008); E. Elhauge & D. Geradin, *Global Competition Law and Economics* (2007); K. Middleton,

influences of national authorities,⁶ full function⁷ joint ventures or vertical R&D Joint Ventures.

B. Introduction

Jacquemin stated that, in spite of their many positive effects on social welfare, there was a time with more obstacles to R&D co-operation than to collusion in other areas.⁸ This article will explain why that statement must again be interrogated.

Innovation is necessary and has been described by economists such as Adam Smith,⁹ Karl Marx,¹⁰ Alfred Marshall,¹¹ Paul Samuelson, Stiglitz,¹² Rosenberg,¹³ etc. as of central importance to economic growth and welfare. Another and growing role of (European) innovations refers to the 'European' economy enabling itself to compete¹⁴ against the rising economies of India and China.¹⁵ The latter explains the apparent shift in technology policy in Europe in the early 1980s. These 'new' policies originated out of the rise of the Japanese high tech

UK & EC Competition Documents (2007); R. Greaves, *Competition Law* (2003); K. Middleton, J. Rodger & A. MacCulloch, *Cases & Materials on UK & EC Competition Law* (2003); R. Clarke & E. J. Morgan, *New Developments in UK and EU Competition Policy* (2006); etc.

⁶ For more information, see Council Regulation 1/2003, on the implementation of the Rules on Competition, OJ 2003 L1/1.

⁷ See Art. 14 of the Commission Notice on the distinction between concentrative and cooperative joint ventures under Council Regulation 4064/89 of 21 December 1989 on the control of concentrations between undertakings, OJ 1994 C385/5 and Judgment of 23 February 2006 in *Case T-282/02, Cementbouw Handel & Industrie v. Commission*, [2006] ECR II-319 define the concept of full-function joint ventures. Nowadays, it is almost an unwritten rule that full function joint ventures are no cooperative joint ventures. See, for instance, M. Dean & D. McGowan, *EC Competition Law: Joint Ventures* (2007), available at <http://www.practicallaw.com/9-107-3581>, last accessed 26 August 2008. Art. 91-92 of the Commission consolidated jurisdictional notice under Council Regulation 139/2004 on the control of concentrations between undertakings still leave room for interpretation OJ 2008 C95/1.

⁸ A. Jacquemin, *Cooperative Agreements in R&D and European Antitrust Policy*, 32 *European Economic Review* 551 (1988).

⁹ Smith stressed the importance of the improvement of machinery. A. Smith, *Wealth of Nations Book 1, Ch. X, Part II* (1976).

¹⁰ Marx gives a central role to technological innovations in capital goods.

¹¹ Marshall describes 'knowledge' as the chief engine of progress in economy.

¹² J. Stiglitz, *Technical Change, Sunk Costs and Competition*, 18 *Brookings Articles on Economic Activity* (Special Issue on Microeconomics) 883 (1987).

¹³ N. Rosenberg, *Inside the Black Box: Technology and Economics*, Vol. 7 (1982).

¹⁴ The Resolution on the need for early information on technological and industrial developments in East and South-East Asia of relevance to the European Community, OJ 1988 C290/182; The Resolution on the foundation of a European Academy of Sciences and of fora for European scientific dialogue, OJ 1989 C158/369; etc., can be interpreted in such way.

¹⁵ Such ideas of macroeconomic growth are also defended by P. Aghion & P. Howitt, *A Model of Growth Through Creative Destruction*, 60 *Econometrica* 323 (1992); J. P. Neary & P. O'Sullivan, *Beat 'Em Or Join 'Em?: Export Subsidies Versus International Research Joint Ventures in Oligopolistic Markets* (1998); C. Shapiro & R. D. Willig, *On the Antitrust Treatment of Production Joint Ventures*, 4 *The Journal of Economic Perspectives* 113 (1990).

sectors which were identified by a more cooperative business environment.¹⁶ More European innovations can further also contribute to the development¹⁷ of developing countries.¹⁸

Those increases of innovation can be achieved by encouraging R&D Joint Ventures. Such Joint Ventures can be supported by introducing less competition constraints. However, not only R&D Joint Ventures, but also Competition seems essential to achieve innovative processes and economic developments. At the same time there is actually a 'conflict' between more competition and more co-operation. This article focuses on the difficult task for European regulators of setting the 'right balance' in this 'conflict'.¹⁹

Too much competition can lead to overinvestment or underinvestment in R&D.²⁰ Consider, for instance, situations of 'overbidding', where competitors in an early development stage are stimulated to invest for potential rewards that would follow a patent. All competitors would try to be the first one to obtain this patent. This might induce too many to invent early and too many resources to be applied too early. After the patent race, many losing firms might drop out before the development work starts. Overstressing the competitive side is impractical in the area of innovation. Too much competition can further result in

¹⁶ Such cooperative structure would increase competitiveness: L. Branscomb, *Does America Need a Technology Policy?*, 1992 (Mar.-Apr.) Harvard Business Review 24. See also, L.-H. Röller, M. M. Tombak & R. Siebert, *Strategic Choice of Partners: Research Joint Ventures and Market Power*, Discussion Article No 2617, Centre for Economy Policy Research, London (2000).

¹⁷ See, for instance, Resolution on the communication from the Commission to the Council and the European Parliament concerning scientific and technological research: a strategic part of the European Union's development co-operation with developing countries, OJ 1999 C175/35; Communication from the Commission to the Council and the European Parliament – Scientific and technological research – A strategic part of the European Union's development co-operation with developing countries (COM/97/0174 final); Legislative Resolution – co-operation procedure: first reading) embodying the opinion of the European Parliament on the Commission proposal for a Council decision adopting a specific research and technological development programme in the field of life sciences and technologies for developing countries (1990-1994), OJ 1991 C19/109; Common position adopted by the council in accordance with the co-operation procedure laid down in Article 149(2) of the EC Treaty: Proposal for a Council decision adopting a specific research and technological development programme in the field of the life sciences and technologies for countries, OJ 1991 C46/1.

¹⁸ G. B. Navaretti & C. Carraro, *From Learning to Partnership-Multinational Research and Development Co-operation in Developing Countries*, Working Article No 1662, The World Bank International Economics Department International Trade Division, Washington DC (1996). Even on national levels it would contribute to develop the less developed regions: M. T. W. Rosenfeld & D. Roth, *The Impact of Public Research Units on Regional Innovation Processes and Regional Economic Development* (2003).

¹⁹ D. J. Teece, *Competition, Co-operation, and Innovation – Organizational Arrangements for Regimes of Rapid Technological Progress*, 18 Journal of Economic Behavior and Organization 1 (1992); see also, OECD, *Competition Policy and Intellectual Property Rights* (1998), available at <http://webnet1.oecd.org/pdf/M000015215.pdf>, last accessed 1 July 2008; S. Coolsaet, *Samenwerking tussen kennisinstellingen en bedrijven inzake onderzoek (resultaten): intellectuele eigendomsrechten, conflicten en interfaces* 333 (2003); Y. Caloghirou *et al.*, *Science and Technology Policies Towards Research Joint Ventures*, final report, 145 (2000).

²⁰ W. Baldwin & J. T. Scott, *Market Structure and Technological Change* (1987).

undeveloped cooperative relationships between undertakings and create obstacles to technological innovations and improvements of industrial performances.²¹

On the other hand, competition concerns can never allow a total *laissez-faire* approach as any type of Joint Venture can still result in harmful effects on markets.²² Competition should thus be protected while at the same time restricted.

This article states that if the ‘right balance’ could be found, ‘ideal’ efficiencies can result.²³ Schumpeter discovered that ‘perfect’ competition as an aim on its own is not the model of ‘ideal’ efficiency (mainly) because only large firms are able to promote innovation and to reap the rewards of innovation. (However, instead of proposing to encourage R&D Joint Venture co-operation, he rather suggested directly that those firms need some market power.)²⁴

Since the early 1980s, developed countries, with Europe²⁵ at the forefront, have made strong efforts to promote cooperative (industrial) research.²⁶ Several legislative steps²⁷ have been taken with the aim to ‘enhance’ the creation of European R&D Joint Ventures.²⁸ This article will investigate how innovation-related Block Exemptions, forming a group of such legislative steps, have contributed to ‘new’ competition practices concerning R&D Joint Ventures.

It will be explained why in the current case law it is rather exceptional that a joint venture would be classified as a cooperative joint venture (Art. 81 to apply) instead of as a concentrative joint venture (Merger Regulation to apply).²⁹

²¹ T. M. Jorde & D. J. Teece, *Innovation and Co-operation: Implications for Competition and Antitrust*, 4 *The Journal of Economic Perspectives* 75 (1990); M. L. Dertouzos, R. K. Lester & R. M. Solow, *Made in America; Regaining the Productive Edge* (1989).

²² T. Xiong & J. Kirkbride, *The European Control of Joint Ventures: An Historic Opportunity or a Mere Continuation of Existing Practice?*, 23 *E. L. Rev* 37 (1998).

²³ See *infra* section D.I.

²⁴ J. A. Schumpeter, *Capitalism, Socialism and Democracy* (1942).

²⁵ However, there is still a great dissimilarity between the national innovation systems: F. Corvers *et al.*, *Monitoring Technology Policy in Europe: With an Application to the Consequences of the Rise of South-East Asian Countries*, Report, Maastricht Economic Research Institute on Innovation and Technology (MERIT), University of Maastricht (1994); H. Ergas, *Does Technology Policy Matter?*, in B. R. Guile & H. Brooks (Eds.), *Technology and Global Industry: Companies and Nations in the World Economy* 191 (1987); European Commission, *The European Report on Science and Technology Indicators* (1994); European Commission, *Second European Report on Science and Technology Indicators* (1997); A. Wolters & M. Hendriks, *Monitoring Science and Technology Policy III*, Report, Maastricht Economic Research Institute on Innovation and Technology (MERIT), University of Maastricht (1997).

²⁶ For the precise initiatives, see, Y. Caloghirou, N. S. Vonortas & S. Ioannides, *Science and Technology Policies Towards Research Joint Ventures*, 29 *Science and Public Policy* 82-94 (2002).

²⁷ The introduction of several block exemptions and the better regulation of intellectual property rights. (see section E).

²⁸ 22nd Report on Competition Policy, point 294.

²⁹ See, for instance: Judgment of 25 March 1999 in *Case T-102/96, Gencor v. Commission*, [1999] ECR II-753; Judgment of 28 April 1999 in *Case T-221/95, Endemol v. Commission*, [1999] ECR II-1299; Judgment of 3 April 2003 in *Case T-342/00, Petrolessence and SG2R v. Commission*, [2003] ECR II-1161; Judgment of 8 July 2003 in *Case T-374/00, Verband der freien Rohrwerke and Others v. Commission*, [2003] ECR II-2275; Judgment of 30 September 2003 in *Joined cases T-346/02 and T-347/02, Cableuropa and Others v. Commission*, [2003] ECR II-4251; Judgment of 30 September 2003 in *Case T-158/00, ARD v. Commission*, [2003] ECR II-3825; Judgment of

A concentrative joint venture fulfils the conditions of Art. 3(1) of the Merger Regulation³⁰ and should therefore imply a lasting change in the structure of the undertakings concerned.

The effects of avoiding the application of Art. 81 reach far as it means that many co-operations are easily qualified as a 'merger'.³¹ This article will explain why not only the parties, but also the ECJ and the Commission currently avoid applying Art. 81 to R&D Joint Ventures.

C. Cooperative R&D Joint Ventures

I. Definition

Cooperative joint ventures are difficult to define as they have no particular legal structure³² and can be used in many contexts (sales joint ventures, production joint ventures, etc). This variety ensures that there is still no generally accepted definition encompassing cooperative joint ventures.

The (only) clear definition as used in the Commission Notice³³ on the concept of full function joint ventures cannot be helpful as this article does not cover full function joint ventures. This definition is both too wide and too narrow. It is too wide as it does not take into account the purpose of the enterprise and too narrow as it ignores all those joint ventures which adopt a non-corporate structure.³⁴

Within the EC, joint ventures recognised for the purposes of Art. 81, are (insufficiently) defined as

enterprises subject to joint control, by which two or more undertakings which are economically independent of each other can engage in a variety of activities, ranging from joint research and development projects, to joint buying, production and distribution.³⁵

28 September 2004 in *Case T-310/00, MCI v. Commission*, [2004] ECR II-3253; Judgement of 14 December 2005 in *Case T-210/01, General Electric v. Commission*, [2005] ECR II-5575; *Case T-282/02, Cementbouw v. Commission*, *supra* note 4; Advocate General Kokott in *Case C-413/06 P, Bertelsmann and Sony Corporation of America v. Impala*, not yet published; Judgement of 10 July 2008 in *Case C-413/06 P, Bertelsmann and Sony Corporation of America v. Impala*, not yet published.

³⁰ Council Regulation 4064/89 of 21 December 1989, OJ 1989 L395/1, as repealed by Council Regulation 139/2004 of 20 January 2004, OJ 2004 L24/1.

³¹ For instance: the agreement does not have to be entered into on a lasting basis but can be entered into for a definite period of time (so far the agreements are renewable): *Case COMP/M.2903, DaimlerChrysler/Deutsche Telekom/JV*, OJ 2003 L300/62 (12 years was sufficient); *Case COMP/M.2632, Deutsche Bahn/ECT International/United Depots/JV*, OJ 2002 C81/18 (8 years was sufficient); *Case COMP/M.3858, Lehman Brothers/Starwood/Le Meridien*, OJ 2005 C203/3 (Commission considered minimum period from 10-15 years sufficient).

³² Joint ownership, subsidiary, partnership, a joint committee, etc.

³³ Commission Notice on the concept of full-function joint ventures under Council Regulation 4064/89 Art. 3, OJ 1988 C66/1.

³⁴ P. Roth & V. Rose, *European Community Law of Competition* 540-541 (2008).

³⁵ 4th Report on Competition Policy, point 37.

Another definition stated that a joint venture is “a company under the control of two or more independent parent companies each of which makes a substantial contribution to the joint venture.”³⁶ As these definitions explicitly refer to ‘(joint) control’, it seems that the European cooperative joint venture definition tends to focus on merger-related characteristics instead of forms of co-operation (i.e. concentrative³⁷ instead of cooperative characteristics).³⁸ The problem goes further as the concept of control under the Merger Regulation may be different from the one applied in specific areas of competition.³⁹ It further results from the use of the terms ‘company’ and ‘enterprise’ that the ‘European’ definition of a cooperative joint venture does not even distinguish cases where a new enterprise originates from cases where joint ventures’ collaboration merely aims at a more efficient operation of an existing activity of the parents.

Cooperative R&D Joint Ventures are equally nowhere defined and must therefore be seen as a cooperative joint venture which focuses on Research and Development. This definition actually says nothing; terms like “Research” and “Development” are very broad. If competition rules would rely on those terms to treat cooperative R&D Joint Ventures differently from other forms of co-operation, this could result in R&D being a ‘catch all’ category (which overlaps other concepts related to innovation)⁴⁰ or in forms of ‘forum shopping’, which would harm the principle of legal certainty.⁴¹ For instance, what about cooperative Technology (Transfer) Joint Ventures?⁴² One could argue that such Technology Joint Venture is an example of a cooperative R&D Joint Venture. Ironically, the definition of such Technology Joint Venture seems to be equally incomplete.

II. The Economics of R&D Joint Ventures

Competition law must always be applied to and introduced as taking into account economic analysis and a deep understanding of the undertakings practice.⁴³ For this reason, the following titles will aim to provide a better understanding of the

³⁶ Commission Decision 75/95 (SHV/Chevron Oil Europe), OJ 1975 L38/14.

³⁷ See in more detail section D.III.2.d.

³⁸ For the role of ‘joint control’, see L. Butkevicius, *The Notion of Joint Venture in Competition Law*, 65 Law (2007), summary available at <http://www.leidykla.eu/en/journals/law/law-2007-vol-65/butkevicius-1-the-notion-of-joint-venture-in-competition-law/>, last accessed 26 August 2008. This ‘control’ is defined in: Art. 3(2) of the Merger Regulation and Art. 16 and 62 of the Commission consolidated jurisdictional notice under Council Regulation 39/2004, *supra* note 4. See also *Case T-282/02, Cementbouw v. Commission*, *supra* note 4, at para. 58.

³⁹ Art. 23 of the Commission consolidated jurisdictional notice under Council Regulation 139/2004, *supra* note 4.

⁴⁰ See in more detail *infra* section D.

⁴¹ See role of transparency, C. Noonan, *The Emerging Principles of International Competition Law* 565-566 (2008).

⁴² This type of joint venture is regulated by Commission Regulation 772/2004 of 27 April 2004, OJ 2004 L123/11.

⁴³ C. S. Pisuise & A. M. M. Teubner, *Elementaire Europees Gemeenschapsrecht* 180-183 (2005); D. Chalmers *et al.*, *European Union Law* 929 (2006).

goals and effects of R&D Joint Ventures, their chances of success, the economics of R&D in general and the possible consequences for competition and consumer welfare.

1. Aims of R&D Joint Ventures

The general aim refers to solving the problem of knowledge which is not given to anyone in its totality. Many more specific causes for co-operation can be thought of:⁴⁴ A new project can invoke high risks or require more resources than each participant is prepared to invest. Such investment can be necessary to penetrate new markets with goods or services, to manufacture and market high-tech products, to research and develop these services or products, and to carry a high degree of financial risks. A joint venture also allows maximisation of profits through economies of scale or can act as a medium to facilitate a commercial start up in another jurisdiction. Other causes for co-operation can refer to product market complementarities and firm heterogeneity.⁴⁵ R&D Joint Ventures furthermore tend to be formed between firms selling complementary products or between a party which only possesses some skills and a party with the complementary⁴⁶ skills.⁴⁷ R&D Joint Ventures can also be alternatives to pure market transactions or integration within a firm under a single administrative structure (as they retain both commitment and flexibility).⁴⁸ Some market structures result in taking recourse to R&D Joint Ventures as they deal with problems of sizeable subsidy dimensions (for instance, in case of redundancy).⁴⁹

2. Effects of R&D Joint Ventures

Hayek⁵⁰ assumed that “it is (only) through the process of competition that facts will be discovered.” Schumpeter⁵¹ described this way to discovery as a dynamic process of ‘creative destruction’. In general, that is exactly what R&D Joint Ventures do as their creations ‘destroy’ the existing knowledge. This title enumerates the more specific effects of R&D Joint Ventures on the market of innovation, competition, welfare and economic benefits. An analysis of those

⁴⁴ See J. Hagedoorn, A. Link & N. S. Vonortas, *Research Partnerships*, 29 *Research Policy* 567 (2000).

⁴⁵ L.-H. Röller, M. M. Tombak & R. Siebert, *Why Firms Form Research Joint Ventures: Theory and Evidence*, Discussion Article FS IV 97-6r, Wissenschaftszentrum Berlin (1997).

⁴⁶ Complementarities contribute to the result of R&D. See, for instance, J. Poyago-Theotoky, *Equilibrium and Optimal Size of a Research Joint Venture in an Oligopoly with Spillovers*, 43 *The Journal of Industrial Economics* 202 (1995).

⁴⁷ In practice this is often the case with intellectual property rights. However, some rather state that it is more likely that firms cooperate in research when they produce substitute products: G. B. Navaretti *et al.*, *Information Sharing, Research Coordination and Membership of Research Joint Ventures*, Discussion Article No. 3134, Centre for Policy Research, London (2002).

⁴⁸ Jacquemin, *supra* note 8.

⁴⁹ M. Spence, *Cost Reduction, Competition, and Industry Performance*, 52 *Econometrica* 101 (1984).

⁵⁰ F. A. Hayek, *The Use of Knowledge in Society*, 35 *American Economic Review* 519 (1945).

⁵¹ Schumpeter, *supra* note 24.

effects should enable to set a ‘balance’ between encouraging R&D Joint Ventures and competition concerns with better insights.

The market of innovation: Combining the ideas of Schumpeter and Hayek demonstrates that R&D Joint Ventures can have pro-competitive effects. More competition includes more substitutable goods. The market of innovation is self-encouraging as the presence of those substitutable goods results in more incentives to innovate (i.e. to distinguish).⁵²

*Competition:*⁵³ Unlike mergers, cooperative R&D Joint Ventures do less to reduce the number of competitors. The level of competition is influenced by this number of market players.⁵⁴ This means that impacts of market power increases by co-operation seem to be less probable than for mergers.⁵⁵ R&D Joint Ventures can also facilitate integration in the internal market through cross border co-operation as such co-operation removes borders for market access. R&D Joint Ventures also facilitate risky investments and promote innovation and the transfer of technology, and therefore reduce several other borders for market entrance while contributing to the development of new markets.⁵⁶ Less market entrance borders result in a larger number of market players.

The level of competition is not only determined by the level of substitutability of goods or the number of market players, but also by the efficiencies of those market players.⁵⁷ R&D Joint Ventures can result in several efficiency-enhancing effects: a R&D Joint Venture is a medium to bring together complementary technologies and other assets. By doing so, a synergy can be achieved in which new or improved products and processes can be created or existing products can be created at lower costs.⁵⁸ It must be noted that in case of product developments, this has the same effect as direct cost reductions.⁵⁹ It must also be added that these new products or processes can open up new markets as they have demand-creating

⁵² H. Bester & E. Petrakis, *The Incentives for Cost Reduction in a Differentiated Industry*, 11 International Journal of Industrial Organisation 519 (1993).

⁵³ Effects of a joint venture on competition between the parties should be investigated on the relevant market: Commission Decision 77/781 (GEC/Weir-Sodium Circulators), OJ 1977 L327/26. However, each case individually has to be assessed economically and legally with also taking into account the effects on other markets: Commission Decision 77/781, *id.*; Commission Decision 78/921 (WANO Schwarzpulver), OJ 1978 L322/26 and on third parties: Commission Decision 77/160 (Vacuum Interruptors), OJ 1977 L48/32; Commission Decision 80/1332 (Vacuum Interruptors), OJ 1980 L383/1.

⁵⁴ Pisuisse & Teubner, *supra* note 43, at 180-183; Chalmers *et al.*, *supra* note 43, at 930.

⁵⁵ K. Gugler & R. Siebert, *Market Power Versus Efficiency Effects of Mergers and Research Joint Ventures: Evidence from the Semiconductor Industry*, Working Article No. 10323, National Bureau for Economic Research, Cambridge (2004).

⁵⁶ See, for instance, Case COMP/38.064/F2, *DaimlerChrysler AG/Ford Motor Company/General Motors Corporation/Nissan Motor Co. Ltd/Renault SA – Covisint*, OJ 2001 C49/4.

⁵⁷ See ‘efficient competition’ in section D.I.

⁵⁸ B. Byrne & A. McBratney, *Licensing Technology – Negotiating and Drafting Technology Transfer Agreements* (2005); M. I. Kamien & I. Zang, *Meet Me Halfway: Research Joint Ventures and Absorptive Capacity*, 18 International Journal of Industrial Organisation 995 (2000).

⁵⁹ Spence, *supra* note 49.

effects.⁶⁰ Besides this, joint ventures can often lead to reductions of structural over-capacity and help undertakings in crisis sectors to return to viability. R&D Joint Ventures also accelerate the speed of inventions at lower risks.⁶¹ Surveys have shown that the trade balance in industries where companies participate in R&D co-operation is approximately EUR 500 million higher than the trade balance in industries without R&D co-operation.⁶²

Many authors agree that licensing helps to disseminate protected technology and would encourage competition.⁶³ More R&D Joint Ventures would increase the number of such licensing agreements.

However, attention must also be given to the arguments of authors that state that there are possible anticompetitive effects of R&D Joint Ventures.⁶⁴ Firstly, it is clear that when competitors would transfer technologies to each other and impose obligations to provide each other with future improvements, the competition on innovation between these undertakings is restricted as none of the parties can gain a technological lead over the other.⁶⁵ Secondly, most authors state that firm sizes influence R&D Joint Venture participation positively and significantly.⁶⁶ It is therefore likely that (only) 'big' undertakings will cooperate in R&D. This could have major impacts on competition.⁶⁷ Some authors explain this statement by mentioning that the cost of developments is now higher than ever before. Only firms with considerable size (and only jointly) would therefore be able to carry out R&D.⁶⁸ If competitors have incentives to only form joint ventures with firms of equal size, this could lead to a more oligopolistic market structure. Further, the asymmetries would increase the market power of those within the joint venture at the expense of those outside of it.⁶⁹ However, some state that the question with whom to cooperate rather depends on spillovers and on cost differences between firms.⁷⁰ Others see the connection between firm size (market shares) and innovation as outmoded, as in recent decades the boundaries of firms have

⁶⁰ R. C. Levin & P. C. Reiss, *Cost-Reducing and Demand-Creating R&D with Spillovers*, 19 *The RAND Journal of Economics* 538 (1988).

⁶¹ Jacquemin, *supra* note 8.

⁶² J. De Courcy, *Research Joint Ventures and International Competitiveness: Evidence From the National Cooperative Research Act*, 16 *Economics of Innovation and New Technology* 51 (2007).

⁶³ Byrne & McBratney, *supra* note 58.

⁶⁴ J. F. Brodley, *Antitrust Law and Innovation Co-operation*, 4 *The Journal of Economic Perspectives* 97 (1990); Shapiro & Willig, *supra* note 15.

⁶⁵ Byrne & McBratney, *supra* note 58.

⁶⁶ R. Siebert, *The Impact of Research Joint Ventures on Firm Performance: An Empirical Assessment*, Discussion Article FS 96-13, Wissenschaftszentrum Berlin (1996). Others nuance this viewpoint by stating that sometimes there are incentives for a 'big' firm to join a 'smaller' firm: R. J. Rosen, *Research and Development with Asymmetric Firm Sizes*, 22 *The RAND Journal of Economics* 411 (1991).

⁶⁷ However, some state that industry profits are larger when the firms have unequal sizes: S. W. Salant & G. Shaffer, *Optimal Asymmetric Strategies in Research Joint Ventures*, 16 *International Journal of Industrial Organisation* 195 (1998).

⁶⁸ J.-K. Galbraith, *American Capitalism* (1952).

⁶⁹ Röller, Tombak & Siebert, *supra* note 16.

⁷⁰ G. Atallah, *Partner Selection in R&D Co-operation*, 2005s-24, Centre interuniversitaire de recherché en analyse des organisations, Montréal (2005).

become more blurred.⁷¹ A study on determinants of strategic partnerships in R&D has shown that knowledge plays a key role in efforts to strengthen competitive capacity. It follows also from this study that the competitive position of a company is not a determinant whether to join a R&D Joint Venture, as neither the market share of a company, nor the innovative level of the company in the past, are determinants to creating R&D Joint Ventures.⁷² Thirdly, often the joint decision making process between principal competitors, can prevent a patent race.⁷³ It seems for these reasons that the use of R&D Joint Ventures can sometimes lead to market sharing, the raising of barriers to entry and the intensification of market powers.⁷⁴

*Welfare:*⁷⁵ The doctrine states several points: (1) Improved competitiveness corresponds to improved welfare;⁷⁶ (2) There is no doubt that horizontal collaboration can in certain areas make critical contributions to social well-being;⁷⁷ (3) Co-operation will normally, (except when the spillover parameter reaches a certain threshold), not lower welfare relative to free trade, and will normally raise it;⁷⁸ (4) Unlike pure cost sharing, a R&D Joint Venture between two complementary undertakings would never decrease welfare;⁷⁹ (5) Through R&D Joint Ventures, efficiency gains can be reached which are beneficial to consumer welfare.⁸⁰ However, welfare and efficiency are often conflicting goals.⁸¹

Economic benefits resulting from R&D: Co-operation in R&D can eliminate wasteful duplications.⁸² Authors generally agree on the fact that co-operation concerning R&D results in both an increase of R&D and an increase of the

⁷¹ Teece, *supra* note 19.

⁷² F. Maass & U. Backes-Gellner, *The Determinants of Strategic Partnerships in Research and Development (R&D) – A Regional Comparison among the German Federal States* (2004).

⁷³ J. Ordober & R. Willig, *Antitrust for High-Technology Industries: Assessing Research Joint Ventures and Mergers*, 28 *Journal of Law and Economics* 311 (1985).

⁷⁴ 15th Report on Competition Policy 1985.

⁷⁵ See also Elhauge & Geradin, *supra* note 2, at 150.

⁷⁶ De Courcy, *supra* note 62.

⁷⁷ M. L. Katz & J. A. Ordober, *R&D Co-operation and Competition*, 1990 *Brookings Papers on Economic Activity, Microeconomics* 137; W. J. Baumol, *Horizontal Collusion and Innovation*, 102 *The Economic Journal* 129 (1992).

⁷⁸ Neary & O'Sullivan, *supra* note 15.

⁷⁹ Spence, *supra* note 49.

⁸⁰ J. A. Brander & B. Spencer, *Strategic Commitment with R&D: the Symmetric Case*, 14 *Bell Journal of Economics* 225 (1983); Spence, *supra* note 49; M. Katz, *An Analysis of Cooperative Research and Development*, 17 *Rand Journal of Economics* 527 (1986); C. D'Aspremont & A. Jacquemin, *Cooperative and Non-Cooperative R&D in Duopoly with Spillovers*, 78 *The American Economic Review* 1133 (1988); M. I. Kamien, E. Muller & I. Zang, *Research Joint Ventures and R&D Cartels*, 82 *American Economic Review* 1239-1306 (1992).

⁸¹ R. J. van den Bergh & P. D. Camasasca, *European Competition Law and Economics: A Comparative Perspective* 31-38 (2006).

⁸² G. Grossman & C. Shapiro, *Research Joint Ventures: An Antitrust Analysis*, 2 *Journal of Law and Economics* 315 (1986).

quantities of production.⁸³ Some authors state that co-operation always raises more profits than non-co-operation.⁸⁴

There are a number of authors which demonstrate that formations of R&D Joint Ventures are influenced by economic benefit factors. One determining factor refers to the level of spillovers.⁸⁵ (For instance, in an oligopoly higher spillovers will lead to more R&D when firms cooperate, but less when they do not.)⁸⁶ When spillovers are low, an individual company has more incentives to over-invest in R&D. Co-operation would in such case over-internalise this externality. When spillovers are too high, companies will under-invest in R&D as otherwise their investment results too easily in profits for competitors. When spillovers are at an intermediate level, the previous pitfalls will offset each other. A second determining factor refers to the demand. It seems that when demand is concave, R&D is higher than when demand is linear (dashed lines) or when demand is convex (dotted lines).⁸⁷ Another factor refers to the level of ‘moral hazard’.⁸⁸ Co-operation does not happen when the disclosure of know-how is not clearly

⁸³ Jacquemin, *supra* note 8.

⁸⁴ D. Leahy & J. P. Neary, *Public Policy Towards R&D in Oligopolistic Industries*, 87 *American Economic Review* 642 (1997).

⁸⁵ Many articles approach this spillover concept from different perspectives, *see for instance*, A. B. Jaffe, *Real Effects of Academic Research*, 79 *The American Economic Review* 957 (1989) (universities’ influences); C. Halmenschlager, *R&D-cooperating Laggards Versus a Technological Leader*, 13 *Economics of Innovation and New Technology* 717 (2004) (influences from firm size); B. Cassiman & R. Veugelers, *R&D Co-operation and Spillovers: Some Empirical Evidence*, Working Article No. 328, Universitat Pompeu Fabra Economics (1998) (influences of cooperating); A. B. Jaffe, M. Trajtenberg & R. Henderson, *Geographic Localization of Knowledge Spillovers as Evidenced by Patent Citations*, 108 *The Quarterly Journal of Economics* 577 (1993) (influences of geographic location); M. I. Nadiri, *Innovations and Technological Spillovers*, Working Article No. 4423, National Bureau of Economic Research, Cambridge (1993) (effect of the rates of return to own R&D); J. I. Bernstein & M. I. Nadiri, *Interindustry R&D Spillovers, Rates of Return, and Production in High-tech Industries*, Working Article No. 2554, National Bureau of Economic Research, Cambridge (1988) (influences of differences between industries); G. Steurs, *Inter-industry R&D Spillovers: What Difference Do They Make?*, 13 *International Journal of Industrial Organisation* 249 (1995) (effects of intra- and inter-industry R&D spillovers); W. J. Baumol, *Pareto Optimal Sizes of Innovation Spillovers*, RR No 97-42, New York University Faculty of Arts and Science Department of Economics (1997) (effects of very low returns of total economic benefits); D. A. Irwin & P. J. Klenow, *High-Tech R&D Subsidies Estimating the Effects on Sematech*, 40 *Journal of International Economics* 323 (1996) (influences of applying the ‘sharing’ hypothesis instead of the ‘commitment’ hypothesis); G. Atallah, *Information Sharing and the Stability of Co-operation in Research Joint Ventures* (2002) (effects on R&D spending, information sharing and joint venture sizes).

⁸⁶ Neary & O’Sullivan, *supra* note 15.

⁸⁷ *Id.*

⁸⁸ As

a company risks exposing valuable proprietary know-how to the partner, who may fail to reciprocally expose own valuable know-how while at the same time using its partner’s know how to improve its competitive position.

R. Veugelers, *Global Co-operation: A Profile of Companies in Alliances*, Onderzoeksrapport NR9325, Katholieke Universiteit, Leuven (1993).

contractible.⁸⁹ Furthermore, the uncertain character of R&D Joint Ventures⁹⁰ results in a finding that about 20-40% of cost savings from R&D expenditures cannot be appropriated by the investing firms.⁹¹

It seems under this title to be very unpredictable and much contested what could be the expected effects of (and on) R&D Joint Ventures. Such conclusion is a first ground to authorities for not setting a clear 'balance' between encouraging R&D Joint Ventures and competition concerns.

3. Chances of Success

Empirical evidence has demonstrated that R&D co-operation is generally very fragile.⁹² The co-operation only lasts as long as the conditions for profit are promising. This can easily lead to early break-ups, buy-outs or mergers.⁹³ In Europe this conclusion is even aggravated by the fact that much R&D co-operation is multinational and involves different domestic regulations.⁹⁴

Generally, the main causes for failure are the following: (1) Often, it fails at the stage of partner selection or the measurement of contributions. These failures are generally related to the fear of a partner becoming a dangerous competitor;⁹⁵ (2) It can be noticed that co-operation which is strictly limited to the pre-competitive level, can have a deterrent effect of on the emergence of R&D co-operation;⁹⁶ (3) In certain industries market structures vary⁹⁷ a lot and can be very dynamic,⁹⁸ which renders the chances of success difficult to estimate; (4) The output R&D is essentially a public good. Some state therefore that, if, as with private goods, it was implicitly priced to potential consumers, the performance of the system would suffer;⁹⁹ (5) In R&D prolonged interaction is often required;¹⁰⁰ (6) R&D Joint Ventures' success will not only be determined by the new findings but will also be largely dependent upon the organisation of the intellectual property rights

⁸⁹ J. D. Perez-Castrillo & J. Sandonis, *Disclosure of Know-How in Research Joint Ventures*, 15 International Journal of Industrial Organisation 51 (1996). It has also been stated that social gains are in a direct relation with the ability to make certain contracts on the achieved R&D: S. Bhattacharya, J. Glazer & D. E. M. Sappington, *Licensing and the Sharing of Knowledge in Research Joint Ventures*, 56 Journal of Economic Theory 43 (1992).

⁹⁰ See in more detail section C.II.3.

⁹¹ Z. Griliches, *The Search for R&D Spillovers*, 94 Scandinavian Journal of Economics S29 (1992).

⁹² However, still less fragile than other kinds of ventures: B. Kogut, *The Stability of Joint Ventures: Reciprocity and competitive Rivalry*, 38 The Journal of Industrial Economics 183 (1989).

⁹³ *Id.*

⁹⁴ For an overview, see <http://oami.europa.eu/en/mark/aspects/natlaw/default.htm>, last accessed 26 August 2008.

⁹⁵ This is of course more a probable case for horizontal competitors who decide to form a R&D co-operation.

⁹⁶ Jacquemin, *supra* note 8.

⁹⁷ Several studies have demonstrated that the market share instabilities are the greatest for industries of intermediate concentration: J. Pfeffer & P. Nowak, *Joint Ventures and Interorganizational Interdependence*, 21 Administrative Science Quarterly 398 (1976).

⁹⁸ See, for instance, J. Faull & A. Nikpay, *The EC Law of Competition* 36-40 (2007).

⁹⁹ Spence, *supra* note 49.

¹⁰⁰ Jacquemin, *supra* note 8.

(patents, copyright, registered designs, unregistered designs and confidentiality). Many constellations can be thought of. A distinction must be made between cases where the R&D Joint Venture owns the rights itself or jointly with others and cases where the rights are licensed to it from the joint venturers or third parties. Choosing the wrong constellation has far reaching consequences for future co-operation and the effects of the past co-operation; (7) Information concerning development decisions is generally in the hands of rivals within 12 to 18 months and information concerning the detailed nature and operation of a new product or process generally leaks out within one year.¹⁰¹ Another study demonstrated that 60% of patented innovations were imitated within four years and that patents are not very efficient in order to avoid spillovers.¹⁰² The latter demonstrates the need for special protection (patent, etc.) of R&D findings.

It seems under this title that the probable effects of R&D co-operation are subject to rather unpredictable chances of success. This will hold back authorities even more to set a clear balance between encouraging R&D Joint Ventures and competition concerns.

D. Competition

I. Introduction

This Article is of the opinion that authorities should set rules which enable 'efficient competition'.¹⁰³ 'Efficient competition' can be understood in several ways (and does not always refer to the pareto¹⁰⁴ efficiency¹⁰⁵ in the theorem of welfare¹⁰⁶ economics).¹⁰⁷ Some attempts to identify 'efficient competition' accentuated

¹⁰¹ E. Mansfield, *How Rapidly Does New Industrial Technology Leak Out?*, 34 *The Journal of Industrial Economics* 217 (1985).

¹⁰² E. Mansfield, M. Schwartz & R. Wagner, *Imitation Costs and Patents: An Empirical Study*, 91 *Economic Journal* 907 (1981); S. Fölster, *Do Subsidies to Cooperative R&D Actually Stimulate R&D Investment and Co-operation?*, 24 *Research Policy* 403 (1995). The issue of spillover effects is also investigated in: E. N. Wolff & M. I. Nadiri, *Spillover Effects, Linkage Structure, and Research and Development*, 4 *Structural Change and Economic Dynamics* 315 (1993).

¹⁰³ Besides references to 'workable' competition, 'perfect' competition and 'fair' competition, is (less) often referred to 'efficient' competition, these concepts should not be confused with each other. In such way, see T. Lettl, *Kartellrecht I* (2007).

¹⁰⁴ This is the case when none of them can be better off without others being worse off.

¹⁰⁵ As analysed in: A. Lindsay, *The EC Merger Regulation Substantive Issues 7-12* (2006).

¹⁰⁶ Many authors have focused on or referred to the 'welfare' criterium: R. Bork, *The Antitrust Paradox* (1979); B. C. Eaton & M. Eswaran, *Technology-Trading Coalitions in Supergames*, 28 *The RAND Journal of Economics* 135 (1997).

¹⁰⁷ This has a long history. For instance: Adam Smith saw it as a race to get limited supplies or to be rid of excess supplies; G. J. Stigler, *Perfect Competition Historically Contemplated*, 65 *Journal of Political Economy* 1 (1957). Cournot focused largely on cost/price reduction: A. A. Cournot, *Researches Into the Mathematical Principles of the Theory of Wealth* (1897). Edgeworth focused on freedom and free communication between traders and complete divisibility between the commodities: F. Y. Edgeworth, *Mathematical Psychics* (1881).

behavioural aspects without paying enough attention to states of situations.¹⁰⁸ It is therefore not always clear what is meant with 'more competition': does this refer to greater freedom of rivals (for instance, to enter an industry), the increase of the number of rivals, more independent behaviour between rivals, or the increase of the reward for obtaining something which all are striving for (or the penalty for failing to obtain it)? This issue demonstrates that when referring to 'competition concerns' not everyone gives the same meaning to the competition concept.

Besides this, there are several 'levels' of competition resulting in different types of 'efficiencies'. These levels refer to competition in consumption goods, production and innovation and respectively result in allocative, productive and dynamic (innovative) efficiency.¹⁰⁹ Competition to innovate is also the main source of gains in productive efficiency over time.¹¹⁰ Therefore, when referring to 'competition' in the area of R&D Joint Ventures it is necessary to realise that a certain concept of competition should be used, as 'efficient competition' in this area focuses mainly on productive and dynamic efficiencies.¹¹¹

A distinction must also be made between types of research, namely basic research and applied research. The first one is directed towards obtaining new fundamental knowledge; the latter is associated with product and process innovations.¹¹² Obtaining basic research information should be seen as a very pro competitive goal, which equals the competitive starting position and must be spread between competitors on a very wide range.

It seems that, when discussing the suitability of competition regulations, one must make sufficient distinctions and clearly define concepts to obtain clarity.¹¹³ Nevertheless, in line with the unpredictable¹¹⁴ nature of R&D co-operation, authorities hold back to apply and develop those (self-) binding stipulations.

II. Should R&D Joint Ventures Be Encouraged in Light of Competition?

Only after considering the unpredictable nature of R&D Joint Ventures and the difficulties to define and distinguish certain concepts, could one approach the question of whether the formation of R&D Joint Ventures should actually be encouraged through competition.

¹⁰⁸ See, for instance, G. J. Stigler, *Competition*, in J. Eatwell, M. Milgate & P. Newman (Eds.), *The New Palgrave Dictionary of Economics* (1987).

¹⁰⁹ Chalmers *et al.*, *supra* note 43, at 929-930; P. R. Willis, *Introduction to EU Competition Law* 24-26 (2005).

¹¹⁰ J. Vickers, *Concepts of Competition*, 47 *Oxford Economic Articles* 1 (1995).

¹¹¹ This is suggested by Hayek and Schumpeter: Schumpeter, *supra* note 24; F. A. Hayek, *The Meaning of Competition*, in F. A. Hayek, *Individualism and Economic Order* 92 (1949).

¹¹² Siebert, *supra* note 66.

¹¹³ As was suggested in section C.I.

¹¹⁴ See section C.II.2 and 3.

As R&D Joint Ventures can have competition enhancing effects,¹¹⁵ some authors state that these joint ventures must be treated liberally.¹¹⁶ On the other hand, as already demonstrated, some authors warned for serious anticompetitive risks of those joint ventures.¹¹⁷

The Commission takes a positive view on joint ventures in general and has explicitly stated that a joint venture can contribute to several general economic objectives, as it may reduce duplicative unnecessary costs, lead to significant cross fertilisation of ideas and increase the overall R&D activities.¹¹⁸ It also stated that “Through R&D co-operation there is a likelihood that overall R&D by small and medium-sized enterprises will increase and that they will be able to compete more vigorously with stronger market players.”¹¹⁹

The Commission further affirmed that joint ventures can facilitate the integration of the internal market, especially through cross border co-operation and noticed that joint ventures facilitate risky investments and promote innovation and the transfer of technology. It also found that joint ventures contribute to the development of new markets and improve the competitiveness of community industries. It also follows the Commissions’ opinion that joint ventures eliminate structural over-capacities and would improve inventory management, increase transparency and help to link market players.¹²⁰

Nevertheless, the Commission did not give a definite answer by explicitly stating that joint ventures can have several anti-competitive effects, for instance, when a joint venture leads to market sharing, the raising of barriers to entry and to the intensification of market power.¹²¹ Negative effects can refer to restrictions on prices, output, innovation and the variety of quality of products.¹²² The Commission acknowledges in such way that there is no black or white answer on the question whether R&D Joint Ventures should actually be encouraged through special competition rules. Further reasons are that the effects on competition depend on criteria such as firm size and market model and that ‘perfect competition’ is often not more than a utopia, as in certain high technology industries¹²³ equilibrium is created by the presence of only a limited number of firms. (The latter market structures can be described as ‘natural’ oligopolies.)¹²⁴

Therefore, another problem lies in the fact that the main regulative body is not sure whether or not ‘less’ competition is good for innovation.¹²⁵ Hereon must be noticed that bilateral agreements and alliances between firms have become

¹¹⁵ In such way also, P. Craig, *EU Law, Text, Cases and Materials* 936-937 (2002).

¹¹⁶ Jorde & Teece, *supra* note 21.

¹¹⁷ Brodley, *supra* note 64; Shapiro & Willig, *supra* note 15.

¹¹⁸ Point 40 of the Commission Notice: Guidelines on the applicability of Art. 81 of the EC Treaty to horizontal co-operation agreements, OJ 2001 C3/2.

¹¹⁹ *Id.*, at point 41.

¹²⁰ See, for instance, Case COMP/38.064/F2, *supra* note 56.

¹²¹ 15th Report on Competition Policy 1985.

¹²² Commission Notice, *supra* note 118, at point 42.

¹²³ For instance, in the computer industry.

¹²⁴ Jacquemin, *supra* note 8.

¹²⁵ P. A. Geroski, *Innovation, Technological Opportunity and Market Structure*, 42 *Oxford Economic Articles* 586 (1990).

increasingly necessary in order to support innovative activities. Competition policy must recognise that these agreements can often be the “functional antithesis of cartels, but may have certain structural similarities” in cases where co-operation supports innovation.¹²⁶

Under this title investigation must also take place as to whether there is an alternative to the above mentioned competition-related problems. One could wonder whether it would be more appropriate to leave the ‘free market model’ (which implies competition concerns) and take recourse to state subsidisation instead of adapting competition practices.¹²⁷

Without overlooking that through subsidisation new competition concerns could arise in the field of state aid, the following must be said: The current main tool used by the EC to encourage innovation already refers to subsidizing R&D projects (even up to 50% of the total costs of research). There are generally three possible ways to subsidise: (1) The subsidy goes to the patent as the ‘authority’ allocates an additional prize to the joint venture in case of success (patent subsidy); (2) The ‘authority’ commits itself to pay part of the (originally unknown) cost (cost subsidy); and (3) The ‘authority’ pays part of the known cost (cost subsidy).¹²⁸

A patent subsidy is the easiest one to organise. However, risk adverse firms would prefer cost subsidies as this would mean that the ‘authority’ shares the risk of R&D. Unfortunately, unlike patent subsidies, cost subsidies actually do not create many incentives to disclose know how and new findings.¹²⁹ Further, many authors agree that subsidisation yields welfare levels¹³⁰ much lower than co-operation.¹³¹ Further, only subsidies that require co-operation in forms of result sharing agreements have shown to significantly increase the likelihood of co-operation. However, they have also shown they decrease incentives to conduct R&D.¹³² The European EUREKA programs, which required co-operation but no result sharing agreements, did not increase the likelihood of co-operation but increased incentives to conduct R&D only to the same extent as subsidies which do not require co-operation.¹³³

It seems for these reasons that it is not clear in how far the Commission would be prepared to encourage innovation-related co-operation by restricting ‘normal’ competition rules. At the same time it seems that subsidies do not suffice to encourage R&D innovation and that those special competition rules would actually be necessary.

¹²⁶ Teece, *supra* note 19.

¹²⁷ Neary & O’Sullivan, *supra* note 15.

¹²⁸ *Id.*

¹²⁹ Perez-Castrillo & Sandonis, *supra* note 89. See also P. A. David & P. Dasgupta, *Information Disclosure and the Economics of Science and Technology*, in G. Feiwel, Arrow and the Ascent of Modern Economic Theory 519 (1987); Spence, *supra* note 49.

¹³⁰ See section C.II.2.

¹³¹ Neary & O’Sullivan, *supra* note 15.

¹³² Fölster, *supra* note 102.

¹³³ *Id.*

III. Regulating R&D Joint Ventures Within the Art. 81 Context

1. Describing the Task

Art. 163 EU Treaty¹³⁴ calls upon the Community to encourage undertakings in their research and technological development activities and to support their efforts to cooperate with one another. While encouraging these activities the fore mentioned balance between encouraging R&D co-operation and competition concerns must be determined.

In the area of innovation the use of separate regulative instruments would easily overlap.¹³⁵ It is therefore very important that once issued, the regulative instruments are cohesive and applied in a coordinated way. The opposite could result in having to consider a number of different (possibly) off-setting regulations.

This task could be facilitated by making a distinction between ‘pure’ R&D agreements and ‘other’ R&D agreements. ‘Pure’ R&D agreements do not include the joint exploitation of possible results (by means of production, licensing and marketing) and can only cause competition problems if effective competition with respect to innovation is significantly reduced.¹³⁶

Another aspect to take into account derives from current issues rising out of disputes between the producers of pharmaceutical products and parallel traders.¹³⁷ The dispute puts at the fore the question of competition parameters. The ECJ has stated already that “there is competition between producers of medicines, which is mainly concerned with parameters other than price, in particular innovation.”¹³⁸ Competition regulations concerning innovation should also make such a distinction between innovation as a subject to competition and innovation as a parameter to measure the level of competition.

2. Framework of Art. 81 EC

Before discussing the authorities’ regulative answers on the above mentioned task (i.e. the introduction of certain Block Exemptions), the borders within which

¹³⁴ This Article states in relevant part:

The Community shall have the objective of strengthening the scientific and technological bases of Community industry and encouraging it to become more competitive at international level, while promoting all the research activities deemed necessary by virtue of other Chapters of this Treaty ... encourage undertakings, including small and medium-sized undertakings ... in their research and technological development activities of high quality ... (and) support their efforts to cooperate with one another.

¹³⁵ See *in such way also*, V. Korah, Intellectual Property Rights and the EC Competition Rules (2006). See also in more detail *infra* section E.IV.2 and E.VI.1.

¹³⁶ Commission Notice, *supra* note 118, at paras. 55 and 58.

¹³⁷ See C. Stothers, Parallel Trade in Europe – Intellectual Property, Competition and Regulatory Law (2007).

¹³⁸ Judgment of 27 September 2006 in *Case T-168/01, GlaxoSmithKline Services v. Commission*, [2006] ECR II-2969.

those answers must fit and which are set by European law, should briefly be described.¹³⁹

Art. 81(1) prohibits

all agreements between undertakings, decisions by associations of undertakings and concerted practices which may affect trade between Member States and which have as their object or effect the prevention, restriction or distortion of competition within the common market.

This refers to actually or potentially preventing, restricting or distorting the competition within the common market.¹⁴⁰ Such anti-competitive behaviour can originate purely by the parents¹⁴¹ but can also refer to the joint venture undertaking¹⁴² helping to invoke a tacit coordination.

This primary rule has been explained by several secondary sources of law. This article will focus on those concerning horizontal¹⁴³ forms of R&D co-operation. Co-operation is horizontal if the agreement or the concerted practice is entered into between companies which operate at the same market level(s).¹⁴⁴

a. *Scope of Art. 81(1)*

The 1968 Notice¹⁴⁵ concerning agreements, decisions and concerted practices in the field of co-operation between enterprises states that co-operation agreements relating only to R&D and not to the exploitation of the results ('pure' R&D) do not fall within the scope of Art. 81(1).¹⁴⁶ This means that R&D Joint Ventures would not be covered by Art. 81(1) as long as the agreement does not make reference to any form of the exploitation of the results. One could wonder whether this

¹³⁹ More details can be found in: D. Wyatt & A. Dashwood, *European Union Law* 965-1032 (2006); E. Berry & S. Hargreaves, *Textbook European Union Law* 243-246 (2007); P. Mercier *et al.*, *Grands Principes du Droit de la Concurrence* 548-550 (the history) (1999); A. MacCulloch, K. Middleton & J. B. Rodger, *UK and EC Competition Law* 160-257 (2003); R. Barents, *Directory of EC Case Law on Competition* 31-46 (2007).

¹⁴⁰ See, for instance, 6th Report on Competition Policy 1976, para. 55; Commission Decision 86/405 (Optical Fibres), OJ 1986 L 236/30; 13th Report on Competition Policy 1983, paras. 55-57.

¹⁴¹ See, for instance, Case COMP/M.1715, *Alcan/Péchiney I*, OJ 2000 C5/8 and Case COMP/M.3225, *Alcan/Péchiney II*, OJ 2003 C299/19.

¹⁴² See, for instance, Case COMP/M.1852, *Time Warner/EMI*, OJ 2000 C180/10 and Case COMP/M.3333 *Sony/BMG*, OJ 2007 C59/1.

¹⁴³ (As this article only focuses on horizontal forms of co-operation.) Commission Notice, *supra* note 118.

¹⁴⁴ Commission Notice, *supra* note 118.

¹⁴⁵ Notice concerning agreements, decisions and concerted practices in the field of co-operation between enterprises, OJ 1968 C75/3.

¹⁴⁶ The notice (no English version) states (in French):

La Commission considère que les accords suivants ne restreignent pas la concurrence 3. Les accords qui ont uniquement pour objet: a) L'exécution en commun de projets de recherche et de développement, b) l'attribution en commun de mandats de recherche et de mandats concernant le développement, c) la répartition de projets de recherche et de développement entre les participants.

Notice is still relevant considering the existence of a younger and more specific Regulation concerning R&D agreements.¹⁴⁷

Through its Notice¹⁴⁸ on agreements of minor importance which do not fall within the meaning of Art. 81(1), the Commission wanted to encourage small and medium sized¹⁴⁹ undertakings to cooperate and to enter or start up R&D Joint Ventures. The notice introduced relevant *de minimis* thresholds of 10% and 15%. It is unlikely that companies which do not achieve the threshold would be caught by Art. 81(1) EC as these are rarely capable of appreciably affecting trade between the Member States.¹⁵⁰ The Notice also introduced a 5% *de minimis* threshold for markets where parallel networks of similar agreements exist. (None of these thresholds apply to hardcore restrictions.) In order to determine the market shares, the Notice on definition of the Relevant Market should be applied.¹⁵¹

The Guidelines on the applicability of Art. 81 to horizontal co-operation agreements explicitly state that “some categories of agreements do not fall under Art. 81(1) because of their nature” and that this is normally true for a co-operation

that does not imply a coordination of the parties’ competitive behaviour in the market, such as (1) co-operation between non-competitors,¹⁵² (2) co-operation between competing companies that cannot independently¹⁵³ carry out the project or activity covered by the co-operation, ...¹⁵⁴

These guidelines also state that

these categories of co-operation could only come under Art. 81(1) if they involve firms with significant¹⁵⁵ market power¹⁵⁶ and are likely to cause foreclosure problems vi-à-vis third parties.¹⁵⁷

¹⁴⁷ See section E.I.

¹⁴⁸ Notice on agreements of minor importance which do not fall within the meaning of Article 85(1) of the Treaty establishing the European Community, OJ 1997 C372/13 and OJ 2001 C368/13.

¹⁴⁹ The thresholds to apply are set at 5% and 10 %.

¹⁵⁰ In such way, a discussion can be found in: A. Pappalardo, *De nouvelles règles de minimis dans le cadre de la “modernization” des règles communautaires de concurrence*, in P. Demaret, I. Govaere & D. Hanf (Eds.), *Dynamiques juridiques européennes* 411 (2007).

¹⁵¹ OJ 1997 C372/13.

¹⁵² [Author’s footnote] Commission Notice, *supra* note 118, para. 56. However, the Commission Regulation 772/2004, *supra* note 42, implies (by setting market-share thresholds for non-competing undertakings) that Art. 81 can be applied on non-competing undertakings. (see section E.VI.2.)

¹⁵³ [Author’s footnote] *Encyclopaedia of Forms and Precedents*, 13(3) E-Commerce 2001, Part 1.(A).G.1.54.

¹⁵⁴ Commission Notice, *supra* note 118, point 24 and 55-58.

¹⁵⁵ [Author’s footnote] It must be reminded that some authors stated that only ‘big’ firms or very asymmetric firms would be interested in cooperating with each other in R&D.

¹⁵⁶ [Author’s footnote] Those market powers must be calculated with taking into account the position of the parties, the parties’ combined share, the market concentration, the stability of the market shares over time, entry barriers, the likelihood of market entry, countervailing powers of buyers or suppliers and the nature of the products.

¹⁵⁷ Commission Notice, *supra* note 118, point 24.

It is interesting to briefly mention: (1) That the Guidelines on vertical¹⁵⁸ restraints do not provide for the same situations in which Art. 81(1) should not be applied.¹⁵⁹ The guidelines on vertical restraints exclude under Art. 81(1) “agreements of minor importance,” “agreements between small and medium-sized firms” and “agency agreements;”¹⁶⁰ (2) That this instrument, unlike the guidelines on horizontal co-operation mentions possible positive effects in cases where a distributor can free-ride on the promotion efforts of another distributor. Free-riding under these guidelines is seen as positive while the whole patent law system, which is inherently connected with R&D Joint Ventures, aims to minimise forms of free-riding.

b. Influences of the ECJ

The above mentioned guidelines do not prevent the ECJ from interpreting the application practice of Art. 81(1) differently. The ECJ explicitly stated that R&D agreements will fall outside the Art. 81(1) prohibition where it has only an insignificant effect on the market.¹⁶¹ Such an insignificant effect can result from the respective sizes of the parties, their market shares,¹⁶² the economic context¹⁶³ in which the agreement will be performed, the nature of the agreement, the nature of the product or technology, etc.¹⁶⁴

The ECJ also shared the view that if undertakings do not compete, their agreements do not prevent, restrict or distort competition on the common market. In *Elopak/Metal Box-Odin*¹⁶⁵ the Commission stated that both parents were not actual or potential competitors in the relevant market. This was due to the complementary character of the technology and the other resources provided

¹⁵⁸ A co-operation is vertical when there is an agreement or concerted practice between at least two companies which operate at a different level of the production or distribution chain.

¹⁵⁹ Unlike by horizontal R&D Joint Ventures, a general Block Exemption: Commission Regulation (EC) No 2790/1999 of 22 December 1999, OJ 1999 L336/21. It is remarkable that this Block Exemption is not specified towards a certain subject, (like R&D, specialisation, technology, etc.). See also, Guidelines on vertical restraints, OJ 2000 C291/1. (This Block Exemption seems to be the only exemption which states that it “shall not apply to ... agreements the subject matter of which falls within the scope of any other block exemption regulation”: Art. 5 of the Regulation. Therefore, in so far another (applicable) Block Exemption deviates, the other Block Exemption will apply. Such stipulation is not present for the Block Exemptions discussed in section E of this article.

¹⁶⁰ Commission Regulation (EC) No 2790/1999, *id.*

¹⁶¹ See, for instance, Judgment of 9 July 1969 in *Case 5-69, Franz Völk v. S.P.R.L. Ets J. Vervaecke*, [1969] ECR 295; Judgment of 15 September 1998 in *Joined cases T-374/94, T-375/94, T-384/94 and T-388/94, European Night Services Ltd (ENS), Eurostar (UK) Ltd, formerly European Passenger Services Ltd (EPS), Union internationale des chemins de fer (UIC), NV Nederlandse Spoorwegen (NS) and Société nationale des chemins de fer français (SNCF) v. Commission*, [1998] ECR II-3141.

¹⁶² See, for instance, *Agreement of Burroughs AG and Etablissements L. Delplanque et Fils* [1972] CMLR D67.

¹⁶³ See, for instance, *Kabel-und Metallwerke Neumeyer AG and Les Etablissements Luchaire SA's Agreement* [1975] 2 CMLR D40.

¹⁶⁴ See, for instance, paras. 132 *et seq.* of the Guidelines on the application of Article 81 of the EC Treaty to technology transfer agreements, OJ 2004 C101/2.

¹⁶⁵ Commission Decision 90/410 of 13 July 1990 (*Elopak/Metal Box – Odin*), OJ 1990 L209/15.

by each of them. Therefore, the creation of a joint venture could not lead to foreclosure effects since each party had to face important competitors in their respective markets. In *Konsortium E.C.R. 900*¹⁶⁶ the Commission stated that a joint venture between Nokia, Alcatel and AEG was not subject to Art. 81(1) as there was not actual or potential competition between them due to very high costs and risks. These costs and risks ensured that none of them would have been able to proceed alone. These decisions demonstrate that Art. 81(1) should be approached in a realistic and practical way.¹⁶⁷ (Nevertheless, the Commission has reverted in some of its decisions to a rather formalistic approach.)¹⁶⁸

However, in some cases it seemed possible that where the parents to the joint venture were not actual or potential competitors, the agreement would still fall under Art. 81(1) if a major partner in a series of joint venture agreements could prevent the other party in all the agreements from competing with one another (the 'Network Theory').¹⁶⁹

It appears under this title in conjunction with the previous one that the scope of Art. 81(1) can be rather narrow when it concerns cooperative R&D Joint Ventures. However, and again in line with the unpredictable character of cooperative R&D Joint Ventures, such practice seems to be inconsistent (due to the differing competitive expectations). This induces authorities to apply Merger Regulations instead of Art. 81.

c. Partner choices and influences of the 'undertaking'-concept

Parties themselves can avoid being subject to Art. 81(1) by organizing their R&D co-operation in a particular way. Art. 81(1) only applies in case of co-operation between two or more 'undertakings'.¹⁷⁰ A party can only be seen as an undertaking if it is an independent economic entity. Concerning R&D it must be noted that co-operation often involves agencies, sub contracts or relations between parents and subsidiaries. It seems that only when the innovation-related agreement is neither an agency contract, nor any contract between parent and subsidiary, Art. 81(1) can apply.¹⁷¹ A subsidiary who is fully integrated with its parent and

¹⁶⁶ Commission Decision 90/446 of 27 July 1990 (*Konsortium ECR 900*), OJ 1990 L228/31. See, in this line also, Commission Decision 86/405, *supra* note 140; Commission Decision 87/100 of 17 December 1986 (*Mitchell Cotts/Sofiltra*), OJ 1987 L41/31.

¹⁶⁷ Xiong & Kirkbride, *supra* note 22.

¹⁶⁸ See, for instance, Commission Decision 88/469 of 20 July 1988 (*IVECO/FORD*), OJ 1988 L230/39; Commission Decision 90/535 of 15 October 1990 (*Cekacan*), OJ 1990 L299/64; Commission Decision 91/562 of 18 October 1991 (*Eirpage*), OJ 1991 L306/22.

¹⁶⁹ Commission Decision 86/405, *supra* note 140; Commission Decision 90/410, *supra* note 165; Commission Decision 87/100, *supra* note 166.

¹⁷⁰ This concept has an autonomous definition, see J. Pertek, *Droit materiel de l'Union européenne* 198-199 (2005); H.-J. Bunte, *Kommentar zum Deutschen und Europäischen Kartellrecht* 49-58 (2006); E.-J. Mestmäcker & H. Schweitzer, *Europäisches Wettbewerbsrecht* 221-240 (2004); C. Townley, *The Concept of an 'Undertaking': The Boundaries of the Corporation – A Discussion of Agency, Employees and Subsidiaries*, in G. Amato & C.-D. Ehlermann (Eds.), *EC Competition Law – A Critical Assessment* 3 (2007).

¹⁷¹ Concerning subsidiaries and agents, see Elhauge & Geradin, *supra* note 2, at 715-734. Concerning subsidiaries, see Judgment of 24 October 1996 in *Case C-73/95 P, Viho Europe BV v.*

who has no real autonomy to determine its conduct on the market, is therefore no ‘undertaking’ for the purposes of Art. 81(1).¹⁷² In such case the subsidiary and the parent are seen as a single undertaking.¹⁷³ However, only when a parent agrees with an economically dependent subsidiary on a R&D agreement, such agreement cannot be subject to Art. 81(1).¹⁷⁴ Competition authorities should pay attention to whether the ‘daughter’ company tries to sell its output to the ‘parent’ at cost.¹⁷⁵ This will often be a very difficult examination.¹⁷⁶ Another exception refers to subsidiaries not acting as an instrument of their parents but acting as independent operators on the relevant market (this excludes the ‘single economic unit’ perspective).¹⁷⁷ Equally only one undertaking is involved in cases of genuine agencies agreements as in such agreements the agent bears no risk or at least no significant commercial risks.¹⁷⁸

This article states that ‘partners’ can avoid the application of competition rules by using one of the above mentioned constellations. However, competition law avoidance can be overcome by the ECJ’s and the Commission’s realistic¹⁷⁹ approach to competition and is further not very interesting due to consequent risk allocations (by the parent/principal).¹⁸⁰ The next title will demonstrate an alternative way for partners to avoid being subject to Art. 81 and will describe the reason why they want to avoid being subject to Art. 81.

d. Concentrative joint ventures

Some types of joint ventures must be classified as mergers (concentrative joint ventures) and are therefore subject to more specific regulations¹⁸¹ than Art. 81. This viewpoint gives sufficient meaning to the *lex specialis* character of Merger Regulations.¹⁸² However, some state that in case of a merger, also the

Commission, [1996] ECR I-5457, para. 15; Craig, *supra* note 115, at 936-937, S. Goodman, *Cartels and Horizontal Agreements*, in M. Siragusa & C. Rizza, *EU Competition Law*, Vol. III 37 (2007).

¹⁷² See, for instance, *Christiani v. Nielsen* [1969] CMLR D36; *Kodak* [1970] CMLR D19.

¹⁷³ Judgment of 31 October 1974 in *Case 16-74, Centrafarm BV and Adriaan de Peijper v. Winthrop BV*, [1974] ECR 181.

¹⁷⁴ In such way, see, Commission Decision 82/71 of 17 November 1981 (Langenscheidt/Hachette), OJ 1982 L39/25.

¹⁷⁵ As in such case this company obtains an independent character.

¹⁷⁶ Shapiro & Willig, *supra* note 15.

¹⁷⁷ See *Case C-73/95 P, Viho Europe BV v. Commission*, *supra* note 170; Judgment of 31 October 1974 in *Case 15-74, Centrafarm BV and Adriaan de Peijper v. Sterling Drug Inc.*, [1974] ECR 1147; F. O. W. Vogelaar, *The European Competition Rules 14-18* (2007).

¹⁷⁸ M. Mendelsohn & S. Rose, *Guide to the EX Block Exemption for Vertical Agreements 77-86* (2002).

¹⁷⁹ See section D.III.2.b.

¹⁸⁰ Furthermore, the vague definition of R&D Joint Ventures excluded situations in which there would be only one parent. (See section C.I.).

¹⁸¹ The Merger Regulations: Council Regulation 4064/89, as repealed by Council Regulation 139/2004, *supra* note 30.

¹⁸² See, for instance, U. Böge, *Competition and Regulation*, in A. Mateus & T. Moreira, *Competition Law and Economics* 345, at 347-349 (2007).

conditions under Art. 81 *ipso facto* should be checked.¹⁸³ A logical explanation for this would refer to the fact that the articles in the EC Treaty are primary sources of law which should prevail¹⁸⁴ on the secondary sources such as the Merger Regulation and which should be interpreted while taking into account their related secondary sources.¹⁸⁵ The exceptional cases¹⁸⁶ which defend the opinion that when using the Merger Regulation for R&D Joint Ventures, equally Art. 81 (*ipso facto*) must also be used, do not provide much clarity to whether also Block Exemptions under Art. 81(3) are applicable. Besides this, such form of cumulative¹⁸⁷ application of Art. 81 and the Merger Regulation would violate a necessary distinction between cooperative and concentrative joint ventures; i.e. the distinction between cooperating and merging.¹⁸⁸ The Guidelines on horizontal co-operation agreements only state that, where horizontal agreements result in a concentration, the Merger Regulation applies.¹⁸⁹ The Merger Regulation¹⁹⁰ should therefore be used on its own (and not automatically be cumulated with an *ipso facto* application of Art. 81).¹⁹¹

The separation between cooperative joint ventures and those, which should be classified as mergers originally resulted from the Commission introducing the ‘partial concentration/merger test’ and the ‘industrial leadership doctrine’.¹⁹²

The 1996 Memorandum states that

¹⁸³ Just like before the existence of the 1989 Merger Regulation, see Judgment of 17 November 1987 in *Joined cases 142 and 156/84, British-American Tobacco Company Ltd and R. J. Reynolds Industries Inc. v. Commission*, [1987] ECR 4487. Concerning Art. 82, see Judgment of 21 February 1973 in *Case 6/72, Europemballage Corporation and Continental Can Inc v. Commission*, [1973] ECR 215.

¹⁸⁴ See, for instance, M. Herdegen, *Europarecht* 139-166 (2007); F. Amtenbrink & H. H. B. Vedder, *Recht van de Europese Unie* 173-175 (2005); S. Hobe, *Europarecht* 73-90 (2006); Order of 13 July 1990 in *Case C2/88, J. J. Zwartveld and Others*, [1990] ECR I-3365, recital 23.

¹⁸⁵ Such prevailing character would follow the *ratio* of Art. 249 EC and Art. 10 EC.

¹⁸⁶ Judgment of 20 March 2002 in *Case T-175/99, UPS Europe SA v. Commission*, [2002] ECR II-1915.

¹⁸⁷ Not to confuse with the (equally contested) parallel application of the Merger Regulations with Art. 81. (See M. Malaurie-Vignal, *Droit de la Concurrence Interne et Communautaire* 67 (2008), who interpretes “l’imperialisme du droit de la concurrence” in such way.) The distinction is important, see L. Ritter & W. David Braun, *European Competition Law: A Practitioner’s Guide* 484-485 (2004).

¹⁸⁸ However, some explicitly state that concentrations and co-operations are less distinguishable than ever before: M. M. Leita Marques & A. Abrunhosa, *Cooperative Networking: Bridging the Co-operation-Concentration Gap*, in H. Ullrich, *The Evolution of European Competition Law* 126 (2006). No wonder that many authors maintain ‘the middle’: See, for instance: L. O. Blanco & K. J. Jörgens, *Antitrust Rules (Articles 81 and 82 EC)*, in L. O. Blanco (Ed.), *EC Competition Procedure* 6 (2006); E. Navarro *et al.*, *Merger Control in the EU* 1-2 (2005); Ritter & David Braun, *supra* note 187, at 498.

¹⁸⁹ Commission Notice, *supra* note 118, point 39.

¹⁹⁰ For further Merger related informations, see U. Immenga & E.-J. Mestmäcker, *Wettbewerbsrecht EG/Teil 2* 187-836 (2007); M. Furse, *The Law of Merger Control in the EC and the UK* (2007).

¹⁹¹ In such way, see Elhauge & Geradin, *supra* note 2, at 803; L. Federico Pace, *European Antitrust Law, Prohibitions, Merger Control and Procedures* (2007); G. Van Calster & W. Vandenberghe, *Misbruik van machtspositie en concentratiecontrole*, in Y. Montangie (Ed.), *Mededingingsrecht in Kort Bestek* 81, at 95 (2006); Y. Montangie, *Transparantie in Concentratiecontrole* I (2002).

¹⁹² See, for instance, Commission Decision 75/95, *supra* note 36; Commission Decision 77/543 of

Art. (81) will not apply to agreements limited to the total or partial acquisition of undertakings or to the redistribution of the ownership of undertakings by means of mergers, or the purchase of shareholdings or assets.¹⁹³

The Sixth Report on Competition Policy stated that

The prohibition (Art 81) will not in general be taken to apply in cases in which the parent companies transfer all their assets to the joint venture and themselves become no more than holding companies. Such a situation will usually be considered to constitute a merger.¹⁹⁴

This ‘partial concentration test’ is exceptional and has restrictive cumulative conditions:

(1) the parents transfer all their business to the joint venture on a lasting basis,¹⁹⁵ (2) all the parents irreversibly withdraw from joint venture’s business,¹⁹⁶ (3) the joint venture performs all the functions of an economic entity and is free to determine its business policy independently,¹⁹⁷ and (4) the arrangement will not lead to co-operation between the parents in other areas.^{198 199}

The ‘industrial leadership doctrine’ defines cases where one parent remained a significant competitor in the same market as the joint venture and assumed a leading role in the management of the joint venture concentrations as in such situation the joint venture will be deemed to be part of the economic group of the leading parent.²⁰⁰

This brings to the fore the Commission Notice on the distinction between concentrative and cooperative joint ventures²⁰¹ as replaced by the Commission Notice on the concept of concentration under Council Regulation 4064/89 on the control of concentrations between undertakings.²⁰²

25 July 1977 (De Laval-Stork), OJ 1977 L215/11; Commission Decision 88/469, *supra* note 168; Commission Decision 88/87 of 22 December 1987 (Enichem/ICI), OJ 1988 L50/18.

¹⁹³ Paras. 14 and 15 of the Memorandum on the problem of concentration in the common market, *Competition Series*, Study No. 3, 1966.

¹⁹⁴ Point 55 of the 6th Report on Competition Policy.

¹⁹⁵ [Author’s footnote] Commission Decision of 6 February 1991 (Baxter/Nestle/Salvia), OJ 1991 C37/11.

¹⁹⁶ [Author’s footnote] In such way, *see* Commission Decision of 4 January 1991 (Mitsubishi/UCAR), OJ 1991 C5/7.

¹⁹⁷ [Author’s footnote] *See, for instance*, Commission Decision of 10 June 1991 (Sanofi/Sterling Drug), OJ 1991 C156/10; Commission Decision of 28 July 1992 (Elf Atochem/Rohm and Haas), OJ 1992 C201.

¹⁹⁸ [Author’s footnote] Commission Decision of 23 November 1991 (Thomson/Pilkington), OJ 1991 C279/19; Commission Decision of 9 December 1992 (Del Monte/Royal Foods/Anglo American), OJ 1992 C331, *see also* point 270 of the 23rd Report on Competition Policy.

¹⁹⁹ Xiong & Kirkbride, *supra* note 22.

²⁰⁰ *See, for instance*, Commission Decision of 28 September 1992 (Linde/Fiat), OJ 1992 C258/14; Commission Decision of 22 January 1992 (Ericsson/Kolbe), OJ 1992 C27/14.

²⁰¹ Commission Notice, *supra* note 4.

²⁰² Commission Notice on the concept of concentration under Council Regulation 4064/89 on the control of concentrations between undertakings, OJ 1998 C66/5.

The rationale behind the distinction between concentrative and cooperative joint ventures was the assumption that (unlike what has already been demonstrated)²⁰³ cooperative joint ventures would be likely to bring with them greater risks of competition harm. Consequently cooperative joint ventures are treated harsher than concentrative joint ventures. In practice, most cooperative joint ventures actually do have similar effects on the market to the effects of concentrative joint ventures. Therefore, many authors expressed their doubts about the economic and industrial justification of such a different treatment.²⁰⁴ They state that the treatment of both types of joint ventures should not differ too widely from each other.²⁰⁵ This opinion gained influence and led to some applying the fore mentioned cumulative *ipso facto* application of Art. 81 and to others solely applying Merger Regulations even on cooperative R&D Joint Ventures.

Remarkably, one could argue that the introduction of the Notice on the distinction between concentrative and cooperative joint ventures resulted in a different treatment of ‘comparable’ categories while the replacement of this Notice has contributed to a context in which forms of co-operation are more easily seen as forms of merger.²⁰⁶ The main differences between both systems refer to joint ventures falling under the Merger Regulation being presumed to be legal unless specific legal consequences will result, while joint ventures under Art. 81(1) are assumed to be illegal unless they are specifically exempted. In light of this and in line with the concerns raised about the different treatment between both types of (R&D) Joint Ventures the Commission introduced several (however failing)²⁰⁷ innovation-related Block Exemptions. Further, unlike those covered by Art. 81, it seems that concentrative joint ventures are, to a degree, immune from national competition rules and procedures under Art. 81.

Within such context, parents and even the European Institutions tend to apply Merger Regulations and avoid qualifying a R&D Joint Venture as a cooperative R&D Joint Venture.²⁰⁸

3. Framework of Art. 81(3)

If Art. 81(1) applies it must be investigated whether or not the conditions in Art. 81(3) are fulfilled. This is in order to determine whether the practice should be prohibited or not. Art. 81(3) states that when an agreement falls within Art. 81(1), it “may” be

declared inapplicable in the case of:

- any agreement or category of agreements between undertakings,
- any decision or category of decisions by associations of undertakings,

²⁰³ See section D.II.2.

²⁰⁴ W. Sibree, *EEC Merger Control and Joint Ventures*, 17 E. L. Rev. 91 (1992).

²⁰⁵ 23rd Report on Competition Policy, 130-131.

²⁰⁶ See in such way, R. Bechtold *et al.*, EG-Kartellrecht-Kommentar 1114-1115 (2005).

²⁰⁷ See section E.

²⁰⁸ In such way, see also, R. Snelders, *Developments in E.C. Merger Control in 1995*, 21 E. L. Rev. 66 (1996).

- any concerted practice or category of concerted practices, which contributes to improving the production or distribution of goods or to promoting technical or economic progress, while allowing consumers a fair share of the resulting benefit, and which does not:

- (a) impose on the undertakings concerned restrictions which are not indispensable to the attainment of these objectives;
- (b) afford such undertakings the possibility of eliminating competition in respect of a substantial part of the products in question.

The Guidelines on the application of Art. 81(3) of the Treaty²⁰⁹ are a main instrument to clarify the application of this Article.

Role and influences of the ECJ

Art. 81(3) is applied using a ‘two-step’-test. The first step includes investigating the anti-competitive effects while the second step includes investigating whether these effects are in balance with pro-competitive effects. In any case, the following four cumulative conditions must be fulfilled and must remain fulfilled: 1) efficiency gains; 2) consumers obtain a fair share; 3) the restrictions are indispensable; and 4) there is no elimination of competition. These broad formulations demonstrate that competition authorities maintain a large amount of discretion.²¹⁰

The ECJ has stated that in appropriate cases national courts may, without destroying the contract, be able to sever restraints from an agreement (for instance, concerning patents, know how, etc.) that offend Art. 81(1) when they are not exempted under Art. 81(3).²¹¹ In such a way, the ECJ explicitly recognises that one contract (for instance, a R&D agreement) can include several aspects (patents, know how, specialisations, etc.), that these aspects are interrelated and that the strength of those interrelations has consequences for the application of Art. 81.

E. Innovation-Related Block Exemptions

Several *leges specialis*²¹² exempt categories of agreements from the application scope of Art. 81(1). These categories of agreements, are exempted ‘en block’

²⁰⁹ Guidelines, *supra* note 1.

²¹⁰ In such way, *see also*, A. Johnston & P. J. Slot, *An Introduction to Competition Law* 74-77 (2006).

²¹¹ *See, for example*, Judgment of 14 December 1983 in *Case 319/82, Société de Vente de Ciments et Bétons de l’Est SA v. Kerpen & Kerpen GmbH und Co. KG*, [1983] ECR 4173.

²¹² The principle of *lex specialis* applies to European law, *see*, Judgment of 12 September 2007 in *Case T-60/05, Union française de l’express (UFEX) and Others v. Commission*, [2007] ECR II-3397; *Case T-374/00, Verband der freien Rohrwerke and Others v. Commission*, *supra* note 29; Judgment of 24 October 2002 in *Case C-82/01 P, Aéroports de Paris v. Commission*, [2002] ECR I-9297; Judgment of 12 September 2000 in *Joined Cases C-180/98 to C-184/98, Pavel Pavlov and Others v. Stichting Pensioenfond Medische Specialisten*, [2000] ECR I-6451; Judgment of 21 September 1999 in *Joined cases C-115/97 to C-117/97, Brentjens’ Handelsonderneming BV v. Stichting Bedrijfspensioenfond voor de Handel in Bouwmaterialen*, [1999] ECR I-6025; Judgment of 21 September 1999 in *Case C-219/97, Maatschappij Drijvende Bokken BV v. Stichting Pensioenfond voor de Vervoer- en Havenbedrijven*, [1999] ECR I-6121; Judgment of 21 September 1999 in *Case*

under Art. 81(3) and are called ‘block exemptions’. Such exemptions result in the non-application²¹³ of Art. 81(1). Concerning the area of innovation, one could argue that several Block Exemptions form a reply to ‘unjustified’ differences in treatment between concentrative and cooperative R&D Joint Ventures.²¹⁴

Block Exemptions are limited in time (normally for 10 years) and exist for several areas related to innovation resulting from research and development: specialisation agreements;²¹⁵ research and development agreements;²¹⁶ patents;²¹⁷ technology transfers;²¹⁸ and know-how licensing²¹⁹ agreements. Patent and know how licensing agreements are currently regulated under the Regulation on categories of technology transfer agreements.²²⁰ This evolution demonstrates that Regulators felt the need to avoid overlapping rules by bringing together related subjects under one exemption regulation.²²¹ However, there is still no general block exemption for all innovation-related matters. The current main Block Exemptions relative to innovation refer to the Block Exemption for R&D, the one for Specialisation Agreements and the one on Technology Transfer Agreements.

I. Categories of R&D Agreements

The most important Block Exemption in relation to R&D Joint Ventures should be the one for categories of Research and Development agreements.²²² It is already demonstrated that 81(3) only applies after finding that the conditions under Art. 81(1) are fulfilled.²²³ Nevertheless this Block Exemption states that “agreements on joint execution of research work or the joint development of the results of the research, up to but not including the stage of industrial application, generally do not fall within the scope of Art. 81(1) of the Treaty.”²²⁴

The aim of this instrument is to encourage co-operation between firms in the area of Research and Development while maintaining ‘efficient’ competition within the common market. This Block Exemption should also be part of the process of simplifying and clarifying competition rules.

The scope of this Block Exemption is vast as it not only exempts agreements of which the primary object is R&D but also all agreements which are indispensable for attaining positive effects, and which are directly related to and necessary for

C-67/96, Albany International BV v. Stichting Bedrijfspensioenfonds Textielindustrie, [1999] ECR I-5751.

²¹³ Art. 1, 1 of Commission Regulation 2658/2000 of 29 November 2000, OJ 2000 L304/3.

²¹⁴ See section D.III.2.d.

²¹⁵ Commission Regulation 2658/2000, *supra* note 213.

²¹⁶ Commission Regulation 2659/2000 of 29 November 2000, OJ 2000 L304/7.

²¹⁷ Commission Regulation 2349/84 of 23 July 1984, OJ 1984 L219/15. (Expired).

²¹⁸ Commission Regulation 772/2004, *supra* note 42 and Commission Guidelines, *supra* note 164.

²¹⁹ Commission Regulation 556/89 of 30 November 1988, OJ 1989 L61/1. (Repealed by: Commission Regulation 240/96 of 31 January 1996, OJ 1996 L31/2).

²²⁰ Art. 1(b) of Commission Regulation 772/2004, *supra* note 42.

²²¹ In such way, see also, R. Folsom, *Principles of European Union Law* 304-310 (2005).

²²² Commission Regulation 2659/2000, *supra* note 216.

²²³ See section D.III.3.

²²⁴ Commission Regulation 2659/2000, *supra* note 216, at (2) of the introduction.

the implementation of co-operation in R&D, in so far as the combined market share does not exceed 25%²²⁵ of the relevant market. The exempted agreements can be aimed at pursuing R&D of products/processes and joint exploitation of the results, exploitation of the results of research previously carried out by the parties or R&D of products and processes excluding joint exploitation of the results.²²⁶

Of course, there are some conditions *sine quae non* the co-operation cannot be exempted.²²⁷ First of all, all parties must have access to the results of the research. Secondly, all parties must also be free to exploit these results. (In case of an agreement limited to R&D, those parties must be free independently to exploit any such result). Thirdly, any joint exploitation of results must be protected by intellectual property rights or constitute know-how that is decisive for the manufacture or application of the end products. Finally, the firms, which are entrusted with manufacturing, must be required to fulfil orders for supplies from all the parties to an agreement.

The exemption explicitly does not apply to R&D agreements which aim directly or indirectly at:²²⁸ 1) restricting the freedom of the participating undertakings to carry out R&D be it in a connected or unconnected field; 2) prohibiting challenges to the validity of intellectual property rights held by the parties, whether exploited for the purposes of the R&D or arising from the R&D results; 3) limiting output or sales; 4) fixing prices; 5) restricting supplies of the product to customers at the end of a seven-year period from the time the products are first put on the market; 6) prohibiting passive sales in territories reserved for other parties; 7) banning marketing of the products in the territories of other parties after a seven-year period from the time the products are first put on the market; 8) preventing licenses from being granted to third parties to manufacture the contract goods where exploitation of the R&D results is not provided or does not take place; 9) requiring distribution to be restricted through, for example, the improper use of intellectual property rights.

The Commission maintains the right to withdraw the benefit of exemption if:²²⁹ 1) the agreement substantially restricts the scope for third parties to carry out the same activity or to gain access to the market; 2) the results of the R&D agreement are not exploited by the parties; 3) the products resulting from the R&D are not subject to competition in the whole or a substantial part of the market; 4) the agreement eliminates effective competition in R&D on a particular market. The latter seems to leave much discretion to the Commission.²³⁰

²²⁵ *Id.*, Arts. 4 and 6.

²²⁶ *Id.*, Art. 1.

²²⁷ *Id.*, Art. 3.

²²⁸ *Id.*, Art. 5.

²²⁹ *Id.*, Art. 7.

²³⁰ In such way, *see also*, N. Khan & C. S. Kerse, EC Antitrust Procedure 351-352 (2005).

II. Critical Remarks

1. Methodical Inconsistency

The exemption introduces a methodical inconsistency. Art. 81(3) can only be applied if the conditions of Art. 81(1) are fulfilled.²³¹ At the same time the block exemption states that “Art. 81(1) shall not apply to agreements entered into between two or more undertakings ... which relate to the conditions under which those undertakings pursue.” Therefore, in case of an exemption, Art. 81(1) is not applicable while the exemption itself can only be applied when the conditions of Art. 81(1) are fulfilled.²³²

2. Failure to Include a Main Aim of an R&D Joint Venture

The exemption also states that it “should not exempt agreements containing restrictions which are not indispensable to attain the positive effects.”²³³ This clearly undermines one of the main incentives to form R&D Joint Ventures, namely the presence of high risks. It has been demonstrated that R&D Joint Ventures are often agreed as they concern risky businesses.²³⁴ Why then does it refer to attaining the positive effects? Such condition implies that the results would or at least are very likely to be found, and therefore that such risks would not be high.

3. A False Feeling of Safety

The exemption, albeit almost a ‘general’ exemption (not only concerning ‘pure’ R&D agreements), leaves much freedom to the Commission to withdraw the benefit if it “finds that a research and development agreement to which the exemption provided ... nevertheless has effects which are incompatible with the conditions laid down in Art. 81(3).”²³⁵ The exemption continues by giving a non-limitative list of some particular examples. Besides this, one must recognise that if the conditions under a Block Exemption are not fulfilled, the Commission can still allow the practice by assessing Art. 81(3).²³⁶ For these reasons, one could wonder why this exemption exists at all. Its existence only gives a false sense of security as the conditions stipulated in Art. 81(3) remain to be applied.

²³¹ See section D.III.3.

²³² Commission Regulation 2659/2000, *supra* note 216, art. 1,1.

²³³ *Id.*, (17) of the introduction.

²³⁴ See section C.II.1.

²³⁵ Commission Regulation 2659/2000, *supra* note 216, art. 7.

²³⁶ Notice pursuant to Article 19 (3) of Council Regulation No 17 concerning Case No IV/34.796 - Canon/Kodak, OJ 1997 C330/10 and Commission Decision 88/555 of 11 October 1988 (Continental/Michelin), OJ 1988 L305/33, the parties had very high combined market shares. Nevertheless the Commission exempted under Art. 81(3). According to some, the matter refers to a balancing test of exemptions: S. Weatherill, *Cases & Materials on EU Law* 531 (2007).

III. Specialisation Agreements

This Block Exemption²³⁷ is very similar to (however, still separated from) the R&D one. A R&D agreement can often also be seen as a specialisation agreement and *vice versa*. This is *a fortiori* the case considering that the exemption for specialisation agreements does not even provide a clear definition of 'specialisation agreements'. Further, (analogically to the R&D exemption) not only agreements with specialisation as the primary object, but also agreements directly related to and necessary for the implementation of the co-operation in specialisation, are exempted.

IV. Critical Remarks

1. Too Much Emphasis on Market Shares

The exemptions put too much emphasis on market shares of the partners. It is interesting that in this exemption reference is made to the "combined market share."²³⁸ This means that the market shares of the participants would not even have to refer to the same markets.

Moreover; there is further no reason why the threshold under this Regulation is 20% while under the R&D Block Exemption it was 25%. Such useless differences can only create new problems. Why in the first place has been decided to rely so heavily on market shares? It is true that the market share thresholds can provide a guide to participants in the joint venture in the form of a safe harbour, however it has been demonstrated above that in the area of innovations, market shares are very unstable.²³⁹ The mechanical use of market shares would further imply that in cases where the threshold would be exceeded after finding a specific innovation, the originators can be punished (by losing protection from exemption). The difficulty *a priori* of estimating the success of a R&D Joint Venture and the unpredictable effects on market shares of finding innovation have also been demonstrated.²⁴⁰

2. Lack of Preventing Overlaps and Dealing with Overlaps

The formulation under point 62 of the Guidelines on the applicability of Art. 81 to horizontal co-operation agreements, which states that

R&D agreements are exempted provided that they are concluded between parties with a combined market share not exceeding 25 % and that the other conditions for the application of the R&D Block Exemption Regulation are fulfilled. Therefore, for most R&D agreements, restrictive effects only have to be analysed if the parties' combined market share exceeds 25%

²³⁷ Commission Regulation 2658/2000, *supra* note 213.

²³⁸ *Id.*, Art. 4.

²³⁹ See section C.II.2. and C.II.3.

²⁴⁰ See section C.II.3.

suggests that when there is a R&D agreement, the R&D Block Exemption must be applied and excludes the application of other Block Exemptions.

Nevertheless, in the area of innovations there is still no settled practice clarifying which rules should be applied. Use must be made of general principles like *leges posterior derogat lege priori*²⁴¹ and *leges specialis*.²⁴² In cases where these principles are not clear or conflict with each other, the rules might need to be applied cumulatively. Such practice does not suffice to provide legal certainty for cases where a R&D Joint Venture which is at the same time a R&D agreement and a specialisation agreement, fulfils the conditions of one Block Exemption but not those of another Block Exemption.

This problem is even more present when realising that a R&D Joint Venture can also involve patents,²⁴³ technology transfers,²⁴⁴ and know-how licensing²⁴⁵ agreements, which have their own Block Exemption Regulation.²⁴⁶ These problems are aggravated by the fact that the Block Exemption for specialisation²⁴⁷ agreements, just like the one for R&D agreements, introduced an approach based on a generally formulated exemption.

V. Technology Transfer Agreements

This Regulation explicitly addresses the concerns referring to legal security for undertakings and efficient competition.²⁴⁸ At the same time, it stated that it was not necessary to define those technology transfer agreements that are capable of falling within Art. 81(1).²⁴⁹ This Regulation embodied the need to bring closely related concepts together under one Regulation and applies also to patent and know how licensing agreements, (which both used to have their own Block Exemptions).²⁵⁰ It is furthermore surprising that the Regulator provided rules for non-competitors

²⁴¹ Just like the fore mentioned *lex specialis* principle, is also this principle recognised in European law. See, for instance, Advocate General Kokott in *Case C-275/06, Productores de Música de España (Promusicae) v. Telefónica de España SAU*, [2008] ECR I-271. However, this opinion also demonstrates that a regulative instrument can often rather “particularise and complement.” See also, Advocate General Jacobs in *Case C-110/02, Commission v. Council*, [2004] ECR I-6333. This opinion stressed that the instruments were “relating to the same circumstances.” Other cases recognising this principle were: Advocate General Ruiz-Jarabo Colomer in *Case C-64/98 P, Odette Nicos Petrides Co. Inc. v. Commission*, [1999] ECR I-5187 and Advocate General Ruiz-Jarabo Colomer in *Case C-104/03, St. Paul Dairy Industries NV v Unibel Exser BVBA*, [2005] ECR I-3481.

²⁴² The ECJ has accepted several legal principles in European law: M. Horspool & M. Humphreys, *European Union Law* 128-155 (2006).

²⁴³ Commission Regulation 2349/84, *supra* note 217 and Commission Regulation 240/96, *supra* note 219 (expired 31 March 2006).

²⁴⁴ Commission Regulation 772/2004, *supra* note 42.

²⁴⁵ Commission Regulation 556/89, *supra* note 219

²⁴⁶ See in more detail section E.VI.1.

²⁴⁷ See section E.V.

²⁴⁸ Commission Regulation 772/2004, *supra* note 42, at para. 4.

²⁴⁹ *Id.*, at para. 8.

²⁵⁰ *Id.*, at Art. 1(b).

(concerning market share thresholds).²⁵¹ Most other stipulations mainly follow the trend set out by the Block Exemption for specialisation agreements and the one for R&D agreements.²⁵²

VI. Critical Remarks

1. A Partial Solution to Deal With Overlaps

The Block Exemption dealt with the need to regulate in one instrument several innovation-related concepts. However, there is no particular reason why this exemption is still regulated separately from specialisation agreements and R&D agreements. Such conclusion can be defended by noticing that: (1) most stipulations are very similar and where differences occur (for instance the market share thresholds) these seem to lack reasonable grounds; (2) The Regulators introduced several useful distinctions in the area of innovations (for instance, specialisation, R&D, technology transfer, etc.) but insufficiently defined each of these concepts. It appears for these reasons that the problem of overlapping rules has been recognised, yet only partly dealt with.²⁵³

2. No Respect for its Legal Framework

Finally, this exemption deviates from the above described legal framework²⁵⁴ in the way that it regulates an application of Art.81 on non-competitors (and even sets *a priori* a threshold between non-competitors of 30% market share). Such stipulations clearly overstress competition concerns at the expense of encouraging co-operation and are therefore out of ‘balance’.

F. Conclusion

Another approach referred to the realistic approach versus the mechanical approach

This article provided clear incentives for authorities and parties to encourage forms of R&D Joint Ventures. A distinction was made between cooperative and concentrative joint ventures, a distinction which should result in a separate understanding of the application of Art. 81 *ipso facto* (competition) and the application of Merger Regulations (*leges specialis*). It has been demonstrated that the only medium to encourage cooperative R&D Joint Ventures is by introducing

²⁵¹ Commission Regulation 772/2004, *supra* note 42, at art. 3.2.

²⁵² For good further analysis, see S. D. Anderman & J. Kallaughner, *Technology Transfer and The New EU Competition Rules – Intellectual Property Licensing after Modernisation* (2006).

²⁵³ In such way, see also V. Korah, *Draft Block Exemption for Technology Transfer*, 25 ECLR 247 (2004); G. L. Tosato & L. Bellodi, *EU Competition Law, Vol. I, Procedure, Antitrust-Merger-State Aid 206* (2006).

²⁵⁴ See section D.III.2.

a less constrained competition regime for the concerned undertakings. The main difficulty in doing this refers to setting the 'right' balance between competition concerns and co-operation ideals.

The finding of that balance is obstructed by many pitfalls. Firstly, there is the absence of a general definition of R&D Joint Ventures. Secondly, the term 'co-operation ideals' includes many unpredictable ways in which economic benefits and competition can be influenced by R&D Joint Ventures and one can not predict the impact of the yet unknown product on the market future. Thirdly, it is not even clear what 'competition concerns' refer to as the term 'efficient competition' encompasses several concepts. Fourthly, authorities and authors have never been able to fully take a clear position on whether cooperative R&D Joint Ventures formations should actually be encouraged or not. Fifthly, it seems that the absence of specific definitions for R&D agreements and other innovation-related agreements has far reaching complications. Sixthly, some opinions still defend the rationale that cooperative R&D Joint Ventures are more dangerous to competition than concentrative R&D Joint Ventures.

The completion of the 'balancing task' faced problems at the very early stage, namely the determination of the legal framework within which the 'outcome' had to be formulated. One example referred to the positive attitude towards free-riding as introduced by the guidelines on vertical restraints, while the whole patent law system aims to prevent any such form of free riding.²⁵⁵ Another example referred to the realistic approach versus the mechanical approach. These and other examples demonstrated that the pre-existing legal framework was already subject to inconsistencies even before introducing the innovation-related Block Exemptions.

All these pitfalls resulted in an even more unclear competition practice surrounding R&D Joint Ventures after the issuing of innovation-related Block Exemptions. The practice is currently described as a 'grey competition area' and comprises an amount of separately regulated and often incoherent legislative instruments which, instead of complying with the incentives to encourage cooperative R&D Joint Ventures, introduced forms of legal uncertainty and unpredictability.

It seems that the described balancing task has been too difficult. Therefore, the application of its outcome, namely the introduction of innovation-related Block Exemptions, is currently being avoided by the parties, the ECJ and the Commission. Such avoidance is mainly made by declaring most R&D forms of co-operation to be forms of merger as the application of Merger Regulations should exclude the *ipso facto* application of Art. 81.

Neither parties, nor the Commission or the EJC, can be blamed for doing so. However, the problems exist and should be dealt with as Merger Regulations actually do not share innovation enhancing aims of the innovation-related Block Exemptions.

²⁵⁵ Both references to 'Free riding' embody the same, and are defined in: V. Korah, EC Competition Law and Practice 22 (2004).

The main elements which make the innovation-related competition practice so confusing include the lack of distinctions and the use and separate regulation of overlapping concepts. Therefore a few basic ideas were suggested for future innovation-related competition regulations.

A first suggestion concerned the strategy of future approaches. To overcome the confusion it is necessary to either provide one clear and general Block Exemption (which fully deals with the problem of overlapping concepts) or to apply the current Block Exemption for R&D agreements only on so-called 'pure R&D agreements'.²⁵⁶

Other suggestions focused more on the content of future approaches: clear definitions should be introduced and distinctions must be applied accurately, for instance, the distinction between 'basic research' (which has always pro-competitive effects) and 'applied research'. Further was suggested to distinguish innovation as a subject to competition from innovation as a parameter of competition.²⁵⁷ The latter should focus less on market shares (which can be very dynamic in the area of R&D). The ECJ stated already (with that knowledge?) that "market power cannot be assessed on the basis of market shares on an emerging market. Such a market should be looked at from a dynamic perspective."²⁵⁸ Therefore, market power should be assessed in a realistic²⁵⁹ way. Market share thresholds can function as safe harbours but should never be applied strictly mechanical in the area of innovation.

²⁵⁶ 'Pure R&D' is regulated by the fore mentioned 1968 Notice, *supra* note 145.

²⁵⁷ In such way, *see also* G. Hirsch, F. Montag & F. Jürgen Säcker, *Competition Law: European Community Practice and Procedure* 270-271 (2008).

²⁵⁸ Judgment of 30 January 2007 in *Case T-340/03, France Télécom SA v. Commission*, [2007] ECR II-107. Similarly is stated that the significance of market shares varies from market to market: Jones & Sufrin, *supra* note 2, at 379.

²⁵⁹ *See* section D.III.2.b.